Mulseal DP

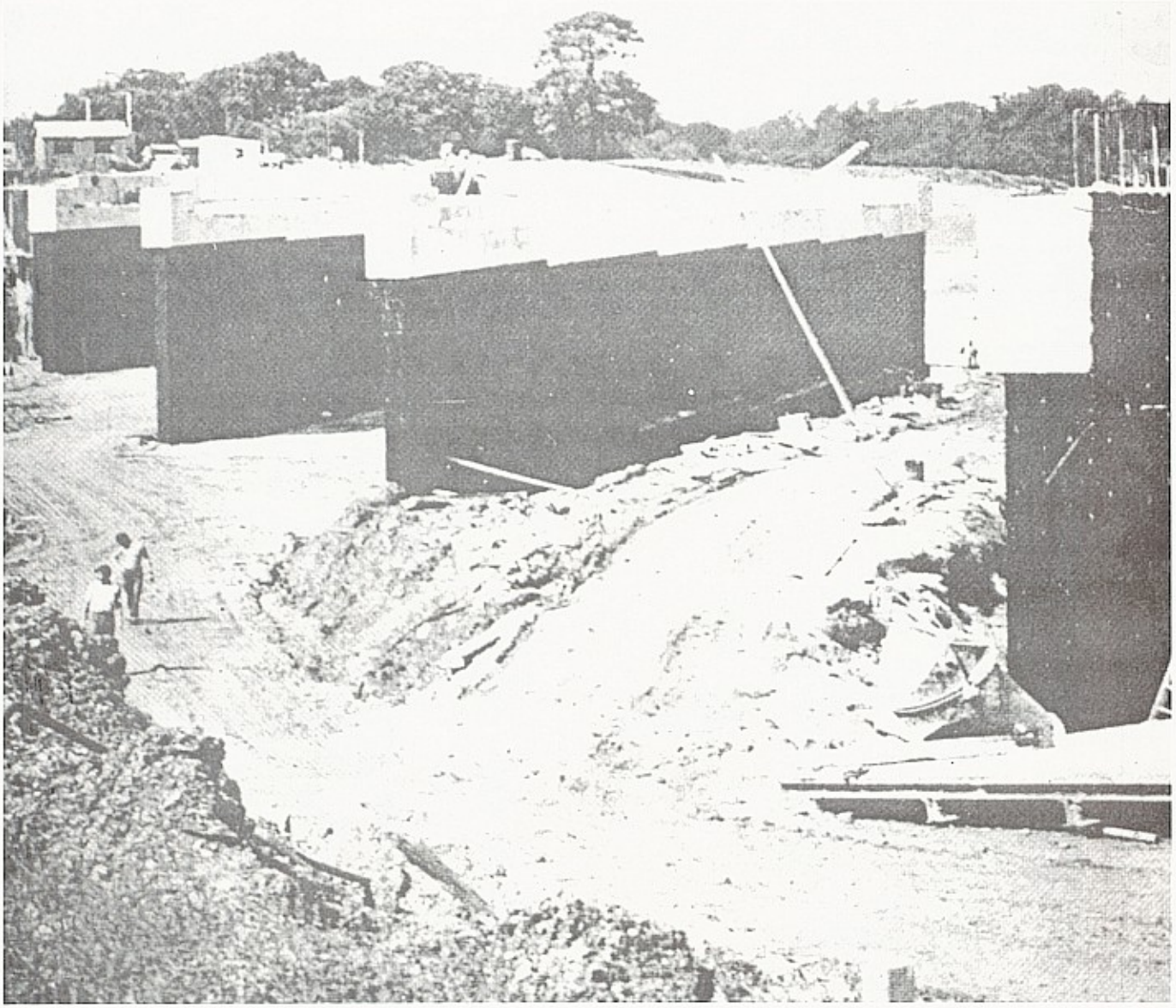
FOSROC constructive solutions

Bitumen/rubber latex emulsion

The product in brief

Mulseal DP is a bitumen/rubber latex Waterproofing and damp proofing compound designed for use as a damp proof membrane, vapour barrier, waterproofing and protective coating.

- Simple to apply by brush
- Dries to a flexible film
- Excellent adhesion to concrete, masonry, etc
- Low water vapour permeability
- Can be applied to green concrete
- Resistant to sulphates and ground salts



Mulseal DP

Principal Applications

- Damp proof sandwich membrane in concrete floors
- Waterproof membrane to retaining walls and flat roofs
- DP membrane to basement structures
- Vapour barrier to cladding panels
- Repairing fine cracks and crazing in asphalt surfaces

Description

Mulseal DP is a single part bitumen latex emulsion for application by brush or squeegee. The incorporation of rubber latex imparts elasticity to the dried coating which is waterproof and resistant to water vapour penetration. Mulseal DP is suitable for use on most building materials such as concrete, brickwork, metals and stone. It is easily applied and may be used on damp surfaces, provided that no tree water is present. It can also be applied to green concrete immediately shuttering has been struck. Where it is used as a sandwich membrane in floors, Mulseal DP should be continued up the walls to link with the damp courses.

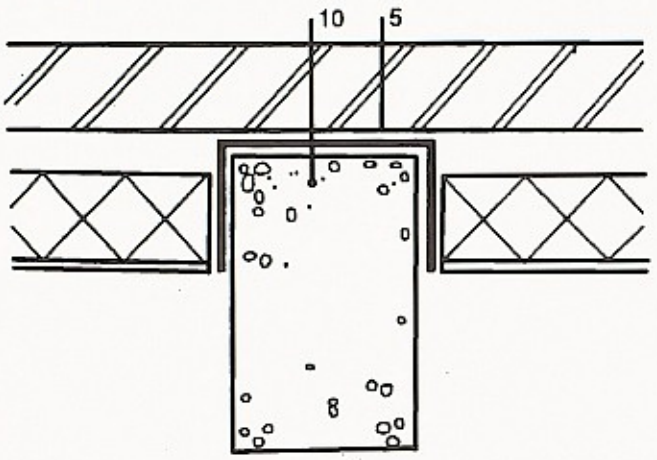
Coating thickness: This will vary with the type of application and nature of the surface to be coated. For guidance, a two coat application of Mulseal DP over a smooth surface should average around 0.7 mm in thickness and will provide a damp proof membrane within the requirements of British Standard Code of Practice CP 102:1973.

Packaging: 20 and 210 litres in pail and drum.

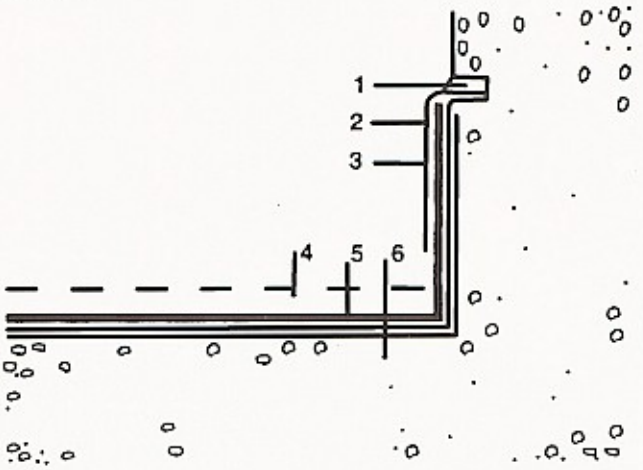
Applications

External walling and cladding: Mulseal DP is recommended for use in structural separation joints between concrete frames, insitu and precast concrete and composite cladding panels and brick and block walling, and as a vapour barrier to cladding panels.

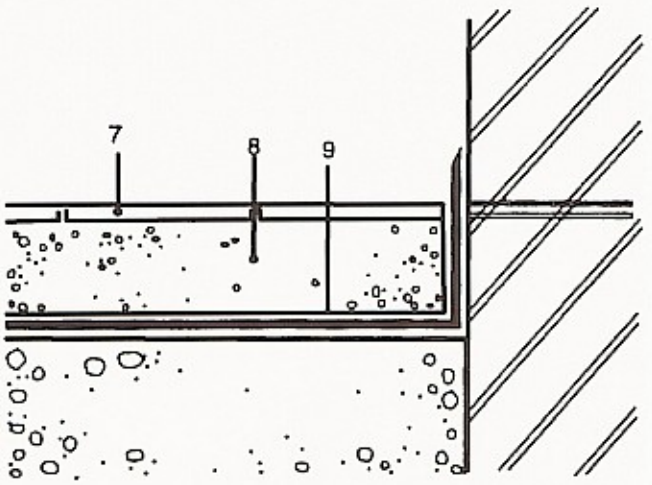
Example of structural separation joint is shown below.



Protective coatings and crack sealing: Mulseal DP is recommended as a damp proof sandwich membrane for ground floor slabs and as a protective membrane to bridge piers, abutments and other concrete substructures prior to back filling. It is also suitable as a low cost waterproofing to concrete, asphalt and felt roofs. Mulseal DP is recommended for reinstating surfaces with leaks due to surface porosity or crazing and it may be used to fill cracks up to 5 mm wide. Larger cracks should be chased out to at least 10 mm wide and repaired with a joint sealing compound such as Plastiseal for roofs or Pliastic for roads.



Example of damp proof membrane under floor screed is shown below.



1* Plastijoint
2 flashing
3 bitumen saturated glass fibre reinforcement
4 sharp sand blinding
5 Mulseal DP
6 existing roof
7 woodblock
8 screed
9 Mulseal DP with bitumen saturated glass fibre reinforcement covering junction between subfloor and wall
10 reinforced concrete column

Mulseal DP

Specification

Preparation: Surfaces shall be clean and free from dust, dirt, oil, grease, moss and loose material. Mulseal DP may be used on damp surfaces but there must be no standing water. Mulseal DP may also be used on uncured concrete. Metal and timber surfaces should be primed with one coat of Primer No. 3. All other surfaces should be primed with a coat of a 1:1 mixture of Mulseal DP and water.

Application: Mulseal DP may be applied by brush or squeegee. Where required Mulseal DP may be reinforced by a bedding layer of bitumen saturated glass fibre, such as Marglass 250, into the first full coat, prior to application of subsequent coats. When used as a sandwich damp course to ground slabs, the final coat should be blinded with clean sharp sand passing through a 3 mm sieve to provide a key for the second concrete pour. Limestone should not be used. When used as a low cost roof treatment the final coat should be protected from sunlight with solar tiles bedded in the wet final coat or by blinding with clean sharp sand as described above. If required, the treated surface may be painted for maximum heat reflection with cement or vinyl based emulsion paint. Mulseal DP is water based and remains soluble until thoroughly dry. It is therefore important that it should not be applied during rain or when rain is expected.

Ancillary materials

Primer No. 3: A black bituminous liquid for brush or spray application. It is supplied in 5 and 25 litre tins.

Health and safety

There are no health hazards associated with Mulseal DP in normal use.

Site instructions

Application: Mulseal DP can be applied by brush or squeegee. It must be thoroughly stirred before use. For efficient waterproofing, a minimum of one priming and three full coats with fibreglass must be used.

Note: Mulseal DP should not be used if rain is expected.

Priming: Porous surfaces such as concrete or asbestos cement must first be treated with a priming coat made up of a solution of Mulseal DP and clean cold water mixed in equal parts. Metal and timber surfaces must be primed with a coat of bituminous Primer No. 3 before applying Mulseal DP.

Brushing: For horizontal surfaces, a squeegee or a cheap, soft bristle broom is satisfactory. For vertical surfaces, use a cheap turks head brush. A useful technique that may be employed to keep brushes clean when using Mulseal DP is as follows:

Mix a strong solution of detergent and water, minimum 1 gallon (5 litres). Soak the brush in the solution and shake out before use. As work progresses, rinse the brush at intervals to prevent it clogging and shake out surplus detergent solution before resuming. Mulseal DP should be laid on to the surface using the brush in one direction and not brushed out. During a break in work or when it is completed, the brush should be cleaned in a strong detergent solution and then in running water. Any Mulseal DP remaining should be cleaned off with white spirit but the spirit must be allowed to evaporate before re-using the brush. Brushes should be of an inexpensive type and considered as expendable. Paint brushes are not suitable. On the larger job, it is preferable to maintain several brushes in use.

Painting on roofs: If paint is applied direct to the Mulseal DP membrane, severe crazing and cracking of the paint film will occur; although this is not serious, it spoils the appearance of the roof when seen from above. It is preferable to blind the final coat with chippings and when dry the surface can be painted with cementitious or PVA paint. No solvent based material should be used, as the solvent will soften the bitumen in Mulseal DP.

Cleaning: A proprietary hand cleanser such as 'Kerocleanse 22' or 'Swarfega' may be used for removing Mulseal DP from the hands. Splashes of Mulseal DP on paintwork, etc. should be wiped off at once with a damp cloth.

Thinning: Mulseal is supplied ready for use. If, however, after thorough agitation the compound appears unduly thick it can as an exception be thinned with not more than 0.25 litre of clean water per 5 litres of Mulseal DP.

Quantities

Guide to quantity used per coat:

Mulseal DP 1.1to 1.4 m^2/litre

Guide to quantity or Mulseal in 1.1 priming coat:

2.0 to 2.5 m^2/litre

Guide to quantity of Expandile Primer No. 3:

12 to 15 m^2/litre

Mulseal DP

Technical data

	Mulseal DP
Form:	Thixotropic liquid
Storage life:	12 months. Must be protected from freezing conditions
Solids content:	60%
Density:	1.00 kg/litre
Application temperature:	5° to 50°C
Drying time:	4 to 6 hours. 24 hours should be left between coatings. Mulseal should not be applied inside closed spaces unless there is adequate circulation of air
Coverage:	Coverage will depend upon the nature of the surface being treated

Technical data: ancillary materials

	Primer No. 3
Flash point:	-1°C
Density:	0.85 kg/litre
Storage life:	12 months +
Coverage:	12.5 m^2/litre
Application temperature:	5 to 50°C
Drying time:	½ to 2 hours

Important note

Whilst all reasonable care is taken in compiling technical data on the company's products all recommendations or suggestions regarding the use of such products are made without guarantee since the conditions of use are beyond the control of the company. It is the customer's responsibility to satisfy himself that each product is fit for the purpose for which he intends to use it and that the actual conditions of use are suitable.

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